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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/981,431

10/16/2001

Michael T. Andreas

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EXAMINER

KORNAKOV, MIKHAIL

ART UNIT

PAPER NUMBER

1746

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
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3 MONTHS

04/03/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/03/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jpolmatier@whdlaw.com

<b>Office Action Summary</b>	Application No. 09/981,431	Applicant(s) ANDREAS, MICHAEL T.	
	Examiner Michael Kornakov	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 8-14, 16-25, 27-45, 47, 48, 50-60, 62-71, 74, 75, 77-79 and 139-156 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9, 10, 16-20, 22-24, 27, 28, 30-37, 42-45, 50-60, 62-66, 70, 71, 77, 139-144, 146-156 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 8,11-14,21,25,29,38-41,47,48,67-69,74,75,78,79,145, 152-156.

### **DETAILED ACTION**

1. Claims 1-6, 8-14, 16-25, 27-45, 47, 48, 50-60, 62-71, 74, 75, 77-79, 139-156 are pending. Claims 8, 11-14, 21, 25, 29, 38-41, 47, 48, 67-69, 74, 75, 78, 79, 145, 152-156 are withdrawn from consideration as drawn to non-elected species. Claims 1-6, 9, 10, 16-20, 22-24, 27, 28, 30-37, 42-45, 50-60, 62-66, 70, 71, 77, 139-144, 146-151 are currently examined on the merits.

#### ***Claim Objections***

2. Claims 16, 27 are objected to, since they respectively recite "the composition of claim" 1 or 18 ..."further comprising", while the both parent claims recite "A cleaning composition...consisting essentially of". As such, broader limitation appears in the dependent claims which contradicts narrower limitation in the parent claims.

3. Claims 152-156 are objected to because of the following informalities: claim identifiers of these claims read "previously presented". However, these claims were withdrawn from consideration as being drawn to the species of organic solvent, non-elected by Applicant in previous communications. Therefore, the claim identifiers of these claims should read ---withdrawn---. Appropriate correction is required.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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5. Claims 1-6, 9, 10, 18-20, 22-24, 27, 28, 30-37, 42-45, 50, 55-60, 62-66, 70, 71, 77, 139-144, 146 and 148 -151 are rejected under 35 U.S.C. 103(a) as being unpatented over Pregozen (U.S. 5,141,803).

Pregozen discloses an aqueous composition containing (a) 0.02-0.25 wt.% of potassium sorbate; (b) 0.05-0.20 wt.% of citric acid; (c) 0.02-0.20 wt.% of disodium salt of EDTA (chelating agent) ; (d) 0.03-0.24 wt.% of cationic biocide; and (e) water to 100 wt.%. Composition has pH 3.5-4.5. Major amount of water employed in the composition is deionized water. Relative amounts of ingredients of composition are within the claimed range (abstract, col.2, line 65 through 3, line 9). ***Composition in Table in col. 6 recites potassium sorbate (antimicrobial agent of the instant claims), citric acid (cleaning agent of the instant claims) and deionized water (solvent) in the amounts as instantly claimed.*** EDTA chelating agent is disclosed in the abstract.

The difference between Pregozen and the instant claims that Pregozen uses 0.03% wt of cationic biocide, such as polyhexamethylene biguanide, while Applicant's claim calls for "***at least one*** antimicrobial agents selected from benzoic acid, sorbic acid and salts thereof". However, by the virtue of definition "biocide" is a chemical designed to kill microorganisms, i.e. antimicrobial agent. Therefore, the addition of biocide in Pregozen will only enhance the antimicrobial action of potassium sorbate as an antimicrobial agent, and therefore, such combination would have been obvious to those skilled in the art, since it is prima facie obvious to combine two compounds each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose, see *In re Kerkhoven*, 626 F.2d 846,

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850, 205 USPQ 1069, 1072 (CCPA 1980). See also *In re Crockett*, 279 F.2d 274, 126 USPQ 186 (CCPA 1960). With regard to Applicant's transitional phrase "consisting essentially of", it is noted that as stated in MPEP 2105 "For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., *PPG*, 156 F.3d at 1355, 48 USPQ2d at 1355.

Claim, 77 and 144 are rejected on the same grounds because they do not in any way limit the ***claimed composition***, but simply add the limitations to its intended use as to what kind of particles are removed by a composition.

6. Claims 16, 17, 51-54 and 147 are rejected under 35 U.S.C. 103(a) as being unpatentable *Pregozen*, in view of *Small* (U.S. 6,156,661).

With regard to claims 16, 17 and 147 *Pregozen* disclose the composition as instantly claimed, utilizing sorbic acid and its salts as antimicrobial agents and citric acid and its salts as cleaning agents. The reference to *Pregozen* does not specifically recite the buffering agents, such as ammonium hydroxide.

*Small* discloses composition for removal of chemical residues from metal or dielectric surfaces or for removal of residues after chemical mechanical polishing of a copper surface, which is an aqueous solution with a pH between about 3.5 and about 7. The composition contains a nonfunctional, **difunctional** or trifunctional organic acid and a buffering amount of a quaternary amine, ammonium hydroxide (abstract). One of the

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preferred compositions contains citric acid, ammonium hydroxide and deionized water (Table VII in col. 11)

Since Pregozen is concerned with maintaining the pH of a composition in a specific range, and Small uses the ammonium hydroxide in a post CMP cleaning solution a person skilled in the art would have found it obvious to utilize the buffering agent of Small in compositions in order to buffer the solution and thus to arrive at the instant claims 16,17 and 147.

It is also noted that, since the cleaning gent of Small is identical to Pregozen, and since Small also utilizes formic acid in his cleaning composition claims 1 and 11), which is an antimicrobial agent, a person skilled in the art would have found it obvious to utilize both citric acid (cleaning agent) and formic acid or sorbic acid (antimicrobial agent), as taught by Pregozen in combination of ammonium hydroxide of Small to maintain the desired pH and thus to arrive at the instant claims.

7. With regard to claims 51-54 Pregozen does not expressly disclose the use of another antimicrobial agent, such as benzoic acid or its derivatives, however, Pregozen does use two antimicrobial agents, one is sorbate and the other is a biocide. Small utilizes benzoic acid in the amounts as claimed in lieu or in combination with citric acid in his composition for cleaning semiconductor wafers (see Table II and claim 1). It is within the skill of those skilled in the art to expect a combination of two known to work in an additive or cumulative manner. The combination of two compositions, each of which is taught by the prior art to be useful for the same purpose, in order to form a third

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composition that is to be used for the same purpose is prima facie obvious In re Kerkhoven, 626 F 2d. 846, 850, 205 USPQ 1-69, 1072 (CCPA 1980).

### ***Response to Arguments***

8. Applicant's arguments filed 01/16/2007 have been fully considered but they are not persuasive.

With regard to the functionally claimed limitations that the amounts of ingredients are added in order to formulate an effective cleaning composition for removal residual particles, it is noted that since the components of Pregozen's composition are substantially the same and in the same relative amounts as claimed, and having the same pH as claimed, the composition of Pregozen is fully capable of removing the particles as claimed.

With regard to the obviousness rejection over Pregozen, Applicants' argument resides in contention that the addition of a cationic biocide as a second antimicrobial agent does materially change the composition of Pregozen, since Pregozen discovered the unexpected result of such addition, which is expressed in minimizing slippery feel of the wet wipe". This is not found persuasive for several reasons:

a) the composition of Pregozen if not applied on a wipe would not be regarded as one concerned with slippery feel;

b) the purpose of Pregozen clearly was to use the second antimicrobial agent (i.e. cationic biocide) in order to ENHANCE the ANTIMICROBIAL action of SORBIC

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ACID, which means to produce and enhance the same effect as two antimicrobial agents of the instant claims do.

c) the use of hexamethylene biguanide in lieu of or to enhance the action of other antimicrobials, such as sorbic acid or benzoic acid is well known in the art. This is evidenced by several publications, such as 20010010016 (0046), US 5,840,671. The Examiner would like to emphasize that these two references are in no way brought here for the rejection, but rather to provide the factual evidence of equal use of cationic biocides along with sorbates and benzoates for the same purpose, only in response to Applicants arguments.

If Applicant contends that materials in the prior art are excluded by the recitation of "consisting essentially of," ***Applicant has the burden of showing that the introduction of additional components would materially change the characteristics of Applicant's invention***, consult. In re De Lajarte, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). See also MPEP § 2111.03.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

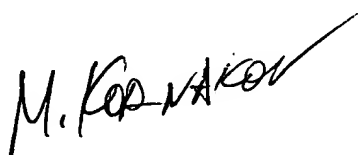
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kornakov whose telephone number is (571) 272-1303. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "M. Kornakov", with a long, sweeping horizontal line extending to the right.

Michael Kornakov  
Primary Examiner  
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03/26/2007